

# NATIONAL WEATHER SERVICE WESTERN REGION SALT LAKE CITY, UTAH



# **APRIL 30, 2002**

#### REGIONAL DIRECTOR

<u>National Weather Service Performance Measure Displays</u>: Offices across the country are assembling National Weather Service performance measure displays. Our agency is one of the leaders in federal government for using mission-related goals to improve service.

Since 1978, we have tracked tornado and severe thunderstorm warnings. As a result of the Government Performance Results Act, the National Weather Service now tracks and sets goals for eight different national areas:

Aviation Forecasts
Flash Flood Warnings
Hurricane Track Forecasts
Marine Forecasts
Precipitation Forecast
Tornado Warnings
U.S. Seasonal Temperature-Skill
Winter Storm Warnings

In addition to improving service, the NWS links performance measures to budget planning. Performance based budgeting is one of President Bush's key management objectives. At a press luncheon in November, Director of the Office of Management and Budget Mitch Daniels, praised the NWS, as a center of excellence in government. Last year, *Government Executive* magazine also recognized NWS as the only agency to get straight A's.

A special thanks to the National Weather Service Office of Communications Director Randee Exler and her staff, and Western Region's Meteorological Services Division, in particular Craig Schmidt, for assistance in designing the display and making these performance standards a reality. I look forward to seeing your displays as I travel to our field offices.

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WFO Salt Lake City Performance Measures Display.

(L to R) Mark Jackson, WFO Salt Lake City Science Operations Officer, and Christopher Brenchley, WFO Salt Lake City Forecaster, are pictured here in front of their office's display.





WFO Reno Performance Measures Display.

(L to R) Larry Brown, WFO Reno Met Intern, and Craig Schmidt, MSD WRH Salt Lake City.

<u>Public Service Recognition Week</u>: Public Service Recognition Week will be celebrated May 5-11. This is the eighteenth national observance and will carry special significance this year after the events of September 11. Each year the President, government leaders, and communities take this opportunity to honor the men and women who serve America as federal, state and local government employees.

The support and understanding of the community are critical to the successful operation of any public agency. I encourage you to raise awareness and ensure your neighbors, friends, and families understand NWS' contributions to the community and to the Nation, both directly and indirectly.

Public Service Recognition Week is a perfect time to emphasize the diversity of our workforce and share in the common bond we have among other federal, state and local public employees because we are all part of "government."

Take a moment during the week to acknowledge your appreciation for the contributions each member of your office's team makes to the agency's total effort. Don't forget our dedicated volunteers from the community who donate their time to assist our organization. Salute all government employees who donate their personal time to activities that benefit

their community as these contributions also enhance our collective image of public servants.

Thank you for your continuing service to the citizens of our Nation. I appreciate your dedication to faithfully fulfilling the mission of the National Weather Service.

## **METEOROLOGICAL SERVICES DIVISION**

STATEMENT OF THE WEEK: This week's statement of the week is a high wind watch, issued for the Las Vegas Valley which experienced a significant high wind event on Monday, April 15, 2002. The watch was concise, specified gusts near 60 mph, and added a County Health District message concerning unhealthful respiratory conditions, due to blowing dust. The WFO did an excellent job with this event, issuing outlook statements 60 hours prior to the event, as well as this watch with 27 hours lead time, and warnings with 8 hours lead time. The staff received a message from Clark County Public Works, expressing appreciation for the "excellent weather forecasts from the Las Vegas weather office during the past weekend." They stated that "resources allocated for several road construction and traffic light maintenance projects were secured and the projects rescheduled because of the outlook for high winds issued on the afternoon of Friday, April 12." Great work WFO Las Vegas and Naeemah Cushmeer!

URGENT - WEATHER MESSAGE NATIONAL WEATHER SERVICE LAS VEGAS NV 316 AM PDT SUN APR 14 2002

.A VIGOROUS STORM SYSTEM MOVING INTO THE INTERIOR WEST ON MONDAY IS EXPECTED TO BRING HIGH WINDS TO THE MOJAVE DESERT AND SOUTHERN GREAT BASIN. THIS SYSTEM WILL ALSO USHER IN MUCH COOLER TEMPERATURES.

TAKE ACTION TO SECURE TRASH CANS...LAWN FURNITURE...AND OTHER LOOSE OR LIGHTWEIGHT OUTDOOR OBJECTS ON MONDAY. HIGH WINDS CAN TOPPLE TREES...BLOW WEAKENED ROOFS OFF HOUSES...AND DOWN POWER LINES.

ALSO...PEOPLE PLANNING TRAVEL IN THE AREA ON MONDAY SHOULD BE PREPARED FOR VERY STRONG OR SUDDEN CROSS WINDS THAT COULD RESULT IN TEMPORARY LOSS OF CONTROL OF YOUR VEHICLE.

NVZ020-142215-LAS VEGAS VALLEY-

...A HIGH WIND WATCH HAS BEEN POSTED FOR MONDAY...

SOUTHWEST WINDS WILL INCREASE THIS AFTERNOON INTO TONIGHT...WITH SPEEDS OF 25 TO 40 MPH WITH GUSTS NEAR 60 MPH EXPECTED ON MONDAY. THIS AMOUNT OF WIND COULD RESULT IN SIGNIFICANT BLOWING DUST IN THE LAS VEGAS VALLEY...MAKING FOR POOR DRIVING CONDITIONS.

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ANTICIPATE THE WINDS TO RAPIDLY DECREASE MONDAY NIGHT.

THE CLARK COUNTY HEALTH DISTRICT HAS ALSO ISSUED A HEALTH ADVISORY FOR THE LAS VEGAS VALLEY DUE TO THE POTENTIAL FOR UNHEALTHFUL LEVELS OF INHALABLE PARTICULATE MATTER RESULTING FROM WIND GUSTS THAT EXCEED 40 MILES PER HOUR. SENSITIVE PERSONS WITH CHRONIC RESPIRATORY CONDITIONS...INCLUDING BOTH ELDERLY CITIZENS AND YOUNG CHILDREN...SHOULD STAY INDOORS UNTIL THE WINDS SUBSIDE.

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**Second Quarter National Performance Measures**: MSD submitted the following information to WSH summarizing WR warning performance for FY02 second quarter. These performance figures were compiled from each WFO but are considered preliminary. WR statistics are followed by National performance goals in parentheses.

<u>Tornado</u>: WR Events, 2; Average Lead Time, 0 mins (11 mins); False Alarm Ratio, 0.00 (0.71); Probability of Detection (POD), 0.00 (0.69).

Flash Flood: WR Events: 0; Average Lead Time, 0 hrs (45 mins), POD, 0.00 (0.86).

Winter Storm Warnings: WR Events, 606; Average Lead Time, 11.0 hrs (13 hrs); POD, 0.89 (0.86).

One of the two tornadoes occurred WFO Boise's CWA in February. The other occurred in Sacramento's CWA in March. Both were very weak.

The WR performance measure for winter storm warning accuracy was considerably higher than first quarter (POD 0.89 vs. 0.80) and higher than the national goal. There was an 11% increase in the overall number of winter storm events, and 165 more warnings issued, compared to 2000-01 season. WR performance measure for winter storm warning lead time decreased slightly in second quarter, compared to first quarter. This may be due to a high frequency of large-scale synoptic events (i.e., affecting many zones) that produced marginal warning criteria snowfall. WFOs pointed out snow advisories were almost always in effect for events that had to be eventually upgraded to warnings for cases that barely reached or exceeded warning criteria.

# HYDROLOGICAL SERVICES DIVISION

AHPS Concept Document Available: OCWWS/HSD have prepared a document that provides a concept of services and operations for Advanced Hydrologic Prediction Services (AHPS) in the NWS. The document contains basic descriptions of new AHPS products and information as conceptual ideas. The format and content of actual products and information will evolve as the NWS works closely with customers and partners and new services become operational. The document can be obtained from the OCWWS/HSD

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AHPS Web site:

#### http://205.156.54.206/om/water/Ahps.shtml

Toward the bottom of the page you will see a link for the Concepts of Service and Operations. Click on the link to obtain the document.

<u>Precipitation Frequency Study Progress Reports</u>: Precipitation Frequency Standards affect billions of dollars of construction and a wide variety of users; civil engineers, regulators, planners, environmental managers to name a few. To keep the field offices in the loop, the Hydrometeorological Design Studies Center is making their progress reports available on updating these standards. The Progress Report for the quarter ending March 2002 for updates to precipitation frequency standards for the Semiarid Southwestern United States can be downloaded at:

http://www.nws.noaa.gov/oh/hdsc/current-projects/SemiaridPR20.PDF

#### SCIENTIFIC SERVICES DIVISION

**CAFTI Meeting Summary**: There were two items approved for implementation during the CAFTI meeting on April 8:

- (1) 20 km RUC implementation was originally approved for implementation on April 16, however, due to expected severe weather in the Mid-West, this was delayed 24 hours to the 1200 UTC run on Wednesday, April 17.
- (2) Implementation of the Eastern North Pacific Regional Wave Model was approved subject to a shifting of the domain Northward (to 60 N) in order to address Cold Season storms in the Gulf of Alaska. The current configuration of the model was implemented, with the domain shift occurring by September 1, 2001. This was done to allow progress to continue as quickly as possible on the implementation of the model, while ensuring that the domain will be sufficient to handle the up-coming cold season in the Northeast Atlantic/Gulf of Alaska.

More detailed information is available in the presentation slides and Technical Procedure Bulletins from each of the above actions/implementations at the link below:

#### http://205.156.54.206/om/tpb/cafs4802.htm

<u>Weather Event Simulator</u>: The COMET Branch of the Office of Climate Water and Weather Services (OCWWS) Training Division continued development of Weather Event Simulator (WES) support Web site. This site, which is part of the SOO Science and Training Resource Center (SOO/STRC), serves as the primary on-line resource for WES-related support information and materials. Additions to the site during April included solutions to the 20 most common WES-related problems (Trouble shooting section), how to print in WES, guidance on purchasing and burning DVDs, and configuring dual-head monitors on your WES system.

Access to the WES case study simulation guides has been made available on the

SOO/STRC through a password protected page. More information can be found on the SOO/STRC at:

#### http://www.comet.ucar.edu/strc/wes

A new mail list has been set up to assist in answering WES-related questions. SOOs can send their questions and answers to soo\_wes@comet.ucar.edu. The mail list is monitored by the SOO Science and Training Resource Coordinator (SOO STRC). In addition, a searchable archive of previous SOO\_WES questions is available on the SOO/STRC Web site.

The SOO Science and Training Resource Coordinator (STRC) has also expanded the archive of operational AWIPS data available through the SOO/STRC FTP server. Offices may now request the data in DVD, 8mm tape, or CD-ROM format.

<u>COMET Classroom</u>: The COMET classroom hosted the first Climate Variability Workshop March 25-29, led by Klaus Weikmann of the NOAA Climate Diagnostics Center, Marina Timofeyeva, NWS Climate Services Division, Julie Adolphson, WFO Glasgow, MT, and Deidre Kahn, WFO Albuquerque. This workshop was targeted at climate focal points at forecast offices. The first Basin Customization Course, for service hydrologists and hydrology focal points, was held April 9-12. Dennis Johnson of Juniata College and Paul Jendrowski, WFO Honolulu, served as co-lead instructors for the course. Student evaluations indicate that both of these initial course offerings were well received.

<u>AWIPS Full Court Press</u>: <u>Maintenance Release 5.1.2.4</u> - Release 5.1.2.4 has been distributed to all sites. It contains 12 patches, including the two critical DRs (9313 and 10586). It also includes patches for IFPS (marine visibility and cntrl\_const table fixes), and VIP capability that allow Climate NWR products to use the Voice Concatenation. The Verification Review was conducted on April 17, and R5.1.2.4 was approved for general release.

Maintenance Release 5.2.1.1 - Initially, this maintenance release contains ORPG, LDAD, and D2D patches, including the critical DR\_10689 (inability of some sites to launch zone-based wargen products on Linux boxes). Currently, all 5.2.1.1 patches are under development. MR5.2.1.1 will be released during the last week in May or the first week in June.

Operational Demonstration of Linux Communications Processor and High Speed LAN - The second step of the AWIPS migration to Linux hardware has begun. To address issues raised by increasing data volume and associated AWIPS performance problems, the Office of Science and Technology and the Office of Operational Systems are conducting an Operational Acceptance Test (OAT) of the Linux Communications Processor (CP) and High-Speed LAN (HSL) equipment. This equipment is designed to improve SBN data acquisition capabilities and speed the transfer of data to and from the CP, data servers, and workstations. The Linux CP, with spare CP configuration, provides significantly more processing speed, internal disk storage capacity, and ports for two additional SBN channels. In additional to improved throughput provided by the Intel processor, the internal disk will enable product storage during software upgrades. The Linux CP is a Dell 2550 rack-mounted Pentium III server (1Ghz) with 256 MB RAM, 4x18 GB SCSI Hard Drive in RAID-5 configuration, and 24xIDE CD-ROM. The HSL equipment includes a 100 Mbps

PlainTree Wave Switch LAN Module and a 10/100/1000 Mbps HP Procurve Ethernet LAN Switch. Northrop Grumman Information Technology (formerly PRC) will install the disk image with Red Hat operating system 7.0, AWIPS user accounts, and disk partitions.

Operational Acceptance Test (OAT) Procedures and Schedule - The CP/HSL OAT will be conducted over a 60-day period at 15 NWS field offices beginning in mid-April and will encompass; (1) verification of the installation procedures, (2) verification of 60 continuous days of operation, (3) documentation of data throughput as compared to the HP CP servers and 10Mbps LAN switch, (4) verification of failover procedures, and (5) verification of hardware maintenance procedures. Initial installation has occurred at NWSH and Southern and Western Region Headquarters. Field installations are beginning during the week of April 15 at WFOs Portland and Pendleton, OR. Assuming a successful demonstration and test, full deployment to all NWS sites is scheduled for September 2002.

Linux Maintenance Policy - The Offices of Science and Technology and Operational Systems are conducting an evaluation of a Linux hardware maintenance approach in which spare Dell servers, I/O boards, and HP LAN switch equipment will be stocked at Northurp Grumman Information Technology (NGIT) during the demonstration. Should a hardware failure be suspected, the site ESA will call the NCF for diagnosis and failover to the backup CP. The NCF will order next-day shipment to the site and the ESA will install the complete Linux CP per the original Modification Note. The failed unit will then be shipped back to NGIT for repair via a 3-year maintenance contract. Prior to shipment to the site, NGIT will load the current disk image. The installation instructions will activate a script which will read site-specific information, such as IP addresses and the RPS list, from the DS onto the replacement CP. After the demonstration, the spares will be re-located at the NWS 's NLSC/NRC. It is anticipated that this approach will provide faster response time and a single point of contact for CP configurations, shipment, and repair. If the approach is successful, the NWS will consider shifting all Linux hardware maintenance responsibility to NWS control at the NLSC.

## SYSTEMS OPERATIONS DIVISION

Western Region Information Technology Officer (ITO) Workshop: Western Region Headquarters hosted the first Western Region ITO Workshop April 16-17, 2002, at Western Region Headquarters. ITOs and representatives from all Western Region field offices participated along with staff from the Systems Integration Branch and the Scientific and Meteorological Services Divisions. The workshop included discussions of applications and Web site development and management, NWS configuration management, IT security, current and future IT projects, and the future emphasis of the ITO program.

**AWIPS**: The new Linux-based AWIPS Comms Processors and High-Speed LAN equipment are now installed at the Pendleton and Portland, OR, WFOs and at Western Region Headquarters. The Office of Science and Technology and the Office of Operational Systems are conducting an Operational Acceptance Test (OAT) of this new configuration. After a successful test period, the new configuration will be implemented nationwide.

# **ABOUT OUR STAFF**

"Bring Your Child to Work" Day: On April 25, WFO Great Falls participated in "Bring Your Child to Work" Day. The kids participated in several interesting weather experiments and short field trips to the radome and inflation shelter. Gina Loss organized the event and devised the experiments. Several staff members helped out.

Pictured below are the participants, holding a mini "ASOS" constructed from an educational kit. (The big kid in the back is Gina!)

